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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,300

09/25/2006

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EXAMINER

YOUNKINS, KAREN L

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,300	Applicant(s) RIBEIRO, JOSE LUIZ	
	Examiner KAREN YOUNKINS	Art Unit 3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-7 are is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/25/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

2. The disclosure is objected to because of the following informalities: The spelling of the word 'piston' is incorrect on Page 6 Line 12. The reference character '21' is used to refer to both the piston and the piston's lower face on page 5 lines 4 and 23 respectively.

Appropriate correction is required.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the control valves of claims 2-7 and sequencer of claims 3-7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

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prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 3-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The sequencer and the operation thereof claimed in claims 3-7 are not described in the specification in such a way as to enable one skilled in the art to make or use the

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invention. There is no discussion of a sequencer or method of operation disclosed in the specification.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear as to how the sequencer is adapted to precede the closure of a present valve by the opening of a next valve of the plurality of control valves. For the purposes of examination, the examiner assumes that the sequencer controls the present and next valves in a manner such that both are in the open position for a period of time.

8. Claims 2-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claims 2-7 repeat numerous instances of insufficient antecedent basis for limitations in the claims. For example, Claim 2 recites the limitations "the control valve", "said cylinder," and "the upward surface" in Page 3. Claim 6 recites the limitations "the upward force" and "the corresponding valve" on page 5. Claim 7 recites the limitations "the residual water jet" and "the time interval" in page 5.

Claim Rejections - 35 USC § 102

10. Claims 2-7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,939,797 to Goettl.

11. In reference to claim 2, Goettl discloses a device (see figures 2 and 3) for cleaning a reservoir or pool by generating a water jet substantially parallel to the inner surface of said reservoir or pool (device is mounted to an inner surface of a reservoir or pool, see column 2 lines 53-55, and further a water jet is generated and exits substantially parallel to the inner surface via 27). The device is adapted to be attached to a bottom wall of said reservoir or pool during normal operation since the bottom wall is an inner surface of the pool. Further, the wall is shaped as a 'comparatively thin partition' (see pool surface 22 in figure 2).

The device comprises an inlet pipe (23) adapted to be coupled to an intermittent supply of water under pressure (adapted as claimed when in normal operation, see column 4 lines 48-55), and a piston (25/33) that is substantially cylindrical (see figure 3) and movable between a lower rest position (see figure 4) and an upper operating position (see figure 2). The piston (25/33) fits slidingly inside a tubular body (11) as the piston slides up and down relative to the lower rest and upper operating positions. The piston is provided with a substantially horizontal outlet duct (27) located close to an upper surface (25) of said cylinder in an eccentric position relative to the cylinder vertical axis (see column 4 line 68 - column 5 line 4, and figure 7).

An 'upward force' (see arrow at the bottom of figure 2) moves the cylindrical piston (25/33) from its lower rest position (in figure 4) to its upper operating position (in figure 2) when the control valve is opened. The cylindrical piston returns to its lower resting position when the valve is closed (see column 4 lines 51-55 and column 5 lines 49-55). The 'upward force' (arrow at the bottom of figure 2) is provided by the pressurized water delivered through the inlet pipe (23), see column 4 lines 51-55.

The device is adapted to be attached to the bottom wall of a reservoir or pool during normal operation, as the bottom wall is an inner surface of the pool. This attachment is provided by the mutual compression of a lower flange (32) juxtaposed to the external underside of the thin partition (22) which constitutes the bottom of the reservoir or pool (juxtaposed when in the upper operating position), and an upper flange (45/32a/39) juxtaposed to an internal upper surface of said thin partition (22). The device is attached to the lower flange (32). See figures 2 and 4 for the attachment/mutual compression.

12. In reference to claim 3, Goettl discloses a cleaning system for a reservoir or pool comprising a plurality of devices for cleaning the reservoir or pool by generating a water jet substantially parallel to the inner surface of said reservoir or pool (devices are mounted to an inner surface of a reservoir or pool, see column 2 lines 53-55, and further a water jet is generated and exits substantially parallel to the inner surface via 27). The devices are adapted to be attached to a bottom wall of said reservoir or pool during normal operation since the bottom wall is an inner surface of the pool, and further the bottom wall is shaped as a comparatively thin partition (see pool surface 22 in figure 2).

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The system comprises a sequencer and a plurality of control valves actuated by said sequencer, see column 4 lines 33-4. The use of a sequencer to actuate control valves as claimed is known as prior art. Each control valve is operatively connected to feed water from a supply of water under pressure intermittently to one or more of said devices, see column 4 lines 51-55 and column 5 lines 49-55.

Each of the plurality of devices comprises an inlet pipe (23) coupled to said supply of water under pressure by one of said control valves actuated by said sequencer (coupled as claimed when in normal operation, see column 4 lines 48-55); a piston (25/33) that is substantially cylindrical and movable between a lower rest position (see figure 4) and an upper operating position (see figure 2). The piston (25/33) is slidably fitted inside a tubular body (11) as the piston slides up and down relative to the lower rest and upper operating positions. The piston being provided with a substantially horizontal outlet duct (27) located close to the upper surface (25) of said cylinder in an eccentric position relative to the cylinder vertical axis (see column 4 line 68 - column 5 line 4, and figure 7).

An 'upward force' (designated by the arrow at the bottom of figure 2) moves the cylindrical piston (25/33) from its lower rest position (in figure 4) to its upper rest position (in figure 2), the 'upward force' being provided by pressure of water delivered through said inlet pipe (23) when the corresponding valve of the sequencer is opened. The cylindrical piston (25/33) returns to its lower resting position (in figure 4) when said valve is closed. See column 4 lines 51-55, column 5 lines 49-55, and see column 4 lines 33-44.

The device is adapted to be attached to the bottom wall of a reservoir or pool during normal operation as the bottom wall is an inner surface of the pool. This attachment is provided by the mutual compression of a lower flange (32) juxtaposed to the external underside of the thin partition (22) which constitutes the bottom of the reservoir or pool (juxtaposed when in the upper operating position), and an upper flange (45/32a/39) juxtaposed to an internal upper surface of said thin partition (22). The device is attached to the lower flange (32). See figures 2 and 4 for the attachment/mutual compression.

13. In reference to claim 4, as previously discussed in pp-12 above, further Goettl discloses the use of a sequencer to open and close control valves is known prior art. see column 4 lines 33-44. Goettl also discloses that the sequencing arrangement is operated such that one or two nozzles are opened at a single time, see column 8 line 66 - column 9 line 6. Thus, Goettl discloses that the sequencer is adapted under normal operation to precede closure of one valve by the opening of a next valve when two nozzles are opened at a single time.

14. In reference to claim 5, as previously discussed in pp-13 above, further Goettl discloses rotation of the piston during the trip from the lower rest position to upper rest position. Goettl also discloses rotation on the return from upper rest position to lower rest position, by the piston returning to the flush position (see column 8 lines 53-59). The rotation on the return to the resting position is provided by the reaction of the residual water jet issuing from the outlet duct (27), see column 8 lines 34-47 for discussion of the operation of the jet stream from lower rest position to upper rest

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position. As the piston is rotated back to the flush position on the return trip the residual water jet stream operates in a similar manner, thus providing rotation on the return to resting position. The rotation is provided within the time interval of opening the next valve and closing the present valve, as the closure of the present valve is preceded by the opening of the next valve as previously discussed in pp-13.

15. In reference to claim 6, the normal operation of the cleaning system of Goettl teaches a method of operating a cleaning system for a reservoir or pool comprising a plurality of devices for cleaning the reservoir or pool by generating a water jet substantially parallel to the inner surface of said reservoir or pool (devices are mounted to an inner surface of a reservoir or pool, see column 2 lines 53-55, and further a water jet is generated and exits substantially parallel to the inner surface via 27). The devices are adapted to be attached to a bottom wall of said reservoir or pool during normal operation since the bottom wall is an inner surface of the pool, and further the bottom wall is shaped as a comparatively thin partition (see pool surface 22 in figure 2).

The system comprises a sequencer and a plurality of control valves actuated by said sequencer, see column 4 lines 33-44, the use of a sequencer to actuate control valves as claimed is known as prior art. Each control valve is operatively connected to feed water from a supply of water under pressure intermittently to one or more of said devices, see column 4 lines 51-55 and column 5 lines 49-55.

Each of the plurality of devices comprises an inlet pipe (23) coupled to said supply of water under pressure by one of said control valves actuated by said sequencer (coupled as claimed when in normal operation, see column 4 lines 48-55); a

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piston (25/33) that is substantially cylindrical and movable between a lower rest position (see figure 4) and an upper operating position (see figure 2). The piston (25/33) is slidingly fitted inside a tubular body (11) as the piston slides up and down relative to the lower rest and upper operating positions. The piston being provided with a substantially horizontal outlet duct (27) located close to the upper surface (25) of said cylinder in an eccentric position relative to the cylinder vertical axis (see column 4 line 68 - column 5 line 4, and figure 7).

An 'upward force' (designated by the arrow at the bottom of figure 2) moves the cylindrical piston (25/33) from its lower rest position (in figure 4) to its upper rest position (in figure 2), the 'upward force' being provided by pressure of water delivered through said inlet pipe (23) when the corresponding valve of the sequencer is opened. The cylindrical piston (25/33) returns to its lower resting position (in figure 4) when said valve is closed. See column 4 lines 51-55, column 5 lines 49-55, and column 4 lines 33-44.

Goettl discloses the use of a sequencer to open and close control valves is known prior art, see column 4 lines 33-44. Goettl also discloses that the sequencing arrangement is operated such that one or two nozzles are opened at a single time, see column 8 line 66 - column 9 line 6. Thus, under normal operation the sequencer precedes closure of one present valve by the opening of a next valve when two nozzles are opened at a single time. The ram stroke is minimized by the operation of the stem 33 discussed in column 5 lines 30-48 as well as the retainer 39 which bleeds out water pressure from the valves, see column 5 line 63 - column 6 line 8.

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16. In reference to claim 7, as previously discussed in pp-15 above, and further Goettl discloses rotation of the piston during the trip from the lower rest position to upper rest position. Goettl also discloses rotation on the return from upper rest position to lower rest position by the piston returning to the flush position, see column 8 lines 53-59. The rotation on the return to the resting position is provided by the reaction of the residual water jet issuing from the outlet duct (27), see column 8 lines 34-47 for discussion of the operation of the jet stream from lower rest position to upper rest position. As the piston rotated back to the flush position on the return trip the residual water jet stream operates in a similar manner, thus providing rotation on the return to resting position. The rotation is provided within the time interval of opening the next valve and closing the present valve, as the closure of the present valve is preceded by the opening of the next valve as previously discussed in pp-13.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 4,193,870 to Goodin and U.S. Patent No. 4,212,088 to Goettl et al. disclose a sequencer with multiple control valves that each operate a corresponding water device similar to the device disclosed. U.S. Patent No. 6,848,124 to Goettl discloses a cleaning system similar to the system disclosed, where the piston returns to a resting position with the use of a spring. U.S. Patent No. 4,391,005 to Goettl discloses a cleaning system similar to the system disclosed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAREN YOUNKINS whose telephone number is

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(571)270-7417. The examiner can normally be reached on Monday through Friday 7:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on (571)272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. Y./

Examiner, Art Unit 3751

/Gregory L. Huson/

Supervisory Patent Examiner, Art Unit 3751